

IN THE CLAIMS

1. (previously presented) An audio and video reproduction apparatus, comprising:

a head mounted display for converting a video signal into an image to present to a user;

a pair of acoustic transducers each used for converting an audio signal into a sound to present to the user;

detection means for detecting an orientation of the head of the user;

image-changing means for changing the video signal supplied to the head-mounted display in accordance with the orientation of the head of the user; and

sound-image localization processing means for changing a sound-image localized position of the audio signal reproduced by the acoustic transducers in accordance with the orientation of the head of the user.

2. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the pair of acoustic transducers are one of headphones mounted on the head of the user and a pair of earphones attached to ears of the user.

3. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the pair of acoustic transducers are speakers provided at positions close to the ears of the user.

4. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the detection means comprises a sensor mounted on the head of the user and a conversion unit for converting a detection signal

generated by the sensor into a signal representing the orientation of the head of the user.

5. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the image-changing means is a cut-out circuit for extracting a video signal representing an image stretched over a visual-field range visible to the user via the head-mounted display from a video signal representing an image stretched over a range wider than the visual-field range in accordance with the orientation of the head of the user.

6. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the image-changing means is a cut-out circuit for extracting a video signal representing an image stretched over a visual-field range of the user from a video signal representing an image stretched over a 360-degree range surrounding the user in accordance with the orientation of the head of the user.

7. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the image-changing means is a video synthesis circuit for synthesizing video signals representing images stretched over a visual-field range visible to the user via the head-mounted display in accordance with the orientation of the head of the user.

8. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the sound-image localization processing means performs sound-image localization processing based on transfer functions from a sound-image localized position of the audio signal to ears of the user to produce the audio signal; and the audio signal is

supplied to the pair of acoustic transducers as if the audio signal were localized at the sound-image localized position.

9. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the sound-image localization processing means converts an audio signal representing a sound covering a 360-degree range surrounding the user into an audio signal that is supplied to the pair of acoustic transducers as a reproduction signal as if the reproduced sound image were localized outside the head of the user.

10. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the video signal supplied to the head-mounted display and the audio signals supplied to the acoustic transducers are reproduced from a recording medium.

11. (previously presented) The audio and video reproduction apparatus according to claim 1, wherein the video signal supplied to the head-mounted display and the audio signals supplied to the acoustic transducers are received from a network real-time.

12. (new) An audio and video reproduction apparatus, comprising:

a head mounted display that converts a video signal into an image to present to a user;

a pair of acoustic transducers that converts an audio signal into a sound to present to the user;

magnetic or gyroscopic head orientation detector that determines changing orientation of the head of the user;

image-changing processor configured to change the video signal supplied to the head-mounted display as a function of the changing orientation of the head of the user as detected by the head orientation detector; and

sound-image localization processor configured to change a sound-image localized position of the audio signal reproduced by the acoustic transducers as a function of the changing orientation of the head of the user as detected by the head orientation detector.